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**A CATECHISM ON PHYSICAL EXERCISES IN SCHOOLS ;**

FOR THE USE OF TEACHERS, SCHOOL COMMITTEES, AND OTHERS.

**CHAPTER I.**

**QUESTION I.** Ought Physical Exercises to be introduced into our Schools?

**ANSWER.** Yes, by all means.

**QUES. II.** Why ought they to be so introduced ?

**ANS.** For many reasons ; a full enumeration of which would furnish heads enough to remind one of an old-fashioned sermon.

**QUES. III.** What, then, are some of these reasons, as it might not be safe to ask for all ?

**ANS.** The following : —

1. The introduction of these exercises into our schools would promote the health of the pupils. How much this is suffering in our improved systems of intellectual education, for want of a corresponding physical education, need not be said. The cry comes to our ears from every part of our land ; and, most of all, from those parts in which the culture of the intellect is receiving the most careful attention. To preserve health, the activity of the mind must be balanced by a corresponding activity of the body. A sluggish body may be safe enough, if it is tenanted by a sluggish spirit. But an active mind begins at once to wear upon an inactive frame. And, the more active the mind is, the more active must the body be, in order to preserve that equilibrium which is essential to the best condition of each. Why is

this? Because, on account of the mysterious connection between spirit and matter in our present life, the action of the mind exercises the nervous system, while the action of the body calls into exercise the muscular system; and, if the nervous system is exercised out of due proportion with the muscular, derangement and disease at once begin. The immortal and the mortal must walk hand in hand through our pathway on earth.

2. It would promote no less the health of our teachers. How many of our best teachers are compelled every year by ill health to resign or suspend their work!

3. It would add to the bodily strength of both teachers and pupils. This is by no means to be thought of little account. The stronger the body is, the more efficient service can it render in all the work of life; in the intellectual, no less truly than in the manual work. Powerful engines require stout frames.

4. It would contribute to personal beauty. How much of deformity is there among our teachers and scholars! How many crooked spines, how many round shoulders, how many contracted chests, how many ungraceful stoops! And then how many ill-developed limbs, how many thin faces, how many pain-expressing lips, how many decaying teeth, how many sallow cheeks, how many lack-lustre or unnaturally lustrous eyes! How are we pained by these sights from day to day! Would that we had wings, we sometimes exclaim, and could fly to some Utopia, where all the men and women should be as handsome as Nature designed them to be! But, really, is it not even a duty to be as beautiful (with Nature's beauty) as we can be, on account of the pleasure we thus give to the eyes of others? And, surely, healthy exercise is a better cosmetic than all that are recommended in all the advertisements of all our newspapers.

5. It would tend greatly to the promotion of happiness. How much this depends in general upon good health, is too obvious to require remark. But besides this general influence, physical exercises contribute distinctly the special happiness of the school-room. A wise ordinance of Heaven has connected pleasure with all healthy and proper activity. This is the great secret of the joyousness of the play-ground, of the universal love which children have for play. And who that has witnessed

physical exercises in the school-room has not observed how suddenly the dull, and perhaps sad looks of the children become radiant upon the announcement of these exercises? As they proceed, what brightness in the eye, what glow upon the cheek, what smiles upon the lips! How the whole atmosphere of the room seems changed, as that of a sultry, oppressive afternoon in summer by a refreshing shower!

6. It would promote energy and success in study. How much better children study after such a relief as has been spoken of in the preceding paragraph! And the general dependence of intellectual improvement upon physical health and vigor is so plain, that no argument, I am persuaded, can be here required.

7. These exercises are excellent in training children to habits of cheerful and prompt obedience. Their effect is like that of the military drill upon the soldier. Words of command are given in rapid succession. They must be instantly obeyed; and they are obeyed, for there is a pleasure in obeying. The habit of obedience thus formed is naturally transferred to the other school duties, and to other directions of the teacher. The introduction of physical exercises has been proved by experience to be one of the best remedies for an insubordinate school. The habit of obedience, when once thoroughly formed, has a wonderful power, and often overrules the strongest previous wishes and determinations. A stalwart band of rebellious negroes once presented arms to their master, who was unarmed, sick, and alone. "Lay down your arms, you rascals," he addressed them with the tone of imperious command, "and go instantly to your work; or I will have every one of you flogged within an inch of his life." The words were but idle breath. The master was entirely in the power of his slaves. And yet the habit of instantly obeying his commands was so strong, that they immediately threw down their arms and fled from his presence. In adducing this illustration, we do not, of course, mean that the teacher should so rule in his domain.

8. These exercises, judiciously introduced, contribute greatly to the good order of a school. A large part of the disorder in our schools is simply the protest of Nature against protracted physical inaction. The child's frame is a bundle of quick, eager

activities ; and, if some normal mode of exercise is not provided for them, they will, almost inevitably and by an irresistible dictate of Nature, seek some mode which is abnormal. If wronged, they will rebel.

9. The moral influence of these exercises is salutary and powerful. "But what can these exercises have to do with morality?" it is asked. Much, in various ways. By contributing to health of body and mind, they favor virtue, which is not a distant cousin, but a sister, of health. By promoting obedience and order, they open the direct pathway to virtue. They remove or diminish some of the temptations and irritations which are most influential for the moral injury of the young. Let us consider the process by which a good boy is often converted into a bad one at school. With a physical frame delighting in action, and impatient of confinement, he is placed upon a hard seat, and told that he must sit still. Well disposed, and wishing to obey, he tries to do so. But Nature, in tones that thrill through every uneasy limb, bids him, "Move, move ; stir about ; thrust out your arms ; kick out your feet ; get down on the floor ; do anything, rather than sit there and suffer." The poor boy cannot resist these solicitations. But his teacher comes, and tells him again to sit still. But Nature again tells him not to sit still ; and he obeys her more powerful mandate. The command of the teacher is repeated with more sternness, and is for awhile obeyed. But at last Nature again prevails. "If you move again, I will punish you," says the teacher. "If you don't move, I will make your bones ache, — your limbs were made to move," says Nature. What can the poor boy do? After repeated struggles, he yields to the higher power. And now come the teacher's blows. But the boy has somehow the feeling, though he does not know how to express it, that he could not have done otherwise, and that the punishment is cruel. He begins to dislike the teacher, and to hate the school. Through such influences, repeated day after day, his temper is gradually spoiled ; he loses the wish to do right ; he comes at last to take pleasure in annoying the teacher and breaking the school-rules, and still more in playing truant : he is on the high road to ruin. But a simple regard to the demands of his physical nature would have saved all this.



QUES. IV. Have you any more reasons to urge ?

ANS. Yes, several more that might be given. But the "sermon" has perhaps already "heads" enough ; and, in lieu of any more, let us have a "practical application."

QUES. V. But are no objections brought against this introduction ?

ANS. Certainly. What good thing is there, to which no objections are made ?

QUES. VI. What are these objections, and how would you answer them ?

ANS. They are such as the following : —

*Obj.* 1. There is no time for these exercises in school. — *Ans.* Much time is lost for lack of them.

*Obj.* 2. They would make the school a disorderly place. — *Ans.* Wisely conducted, they would prevent much disorder.

*Obj.* 3. They would lead to a neglect of the proper business of the school. — *Ans.* No : this business would be better performed.

*Obj.* 4. We and our fathers got along well enough without them, and our children can. — *Ans.* And so there should be no railroads or steamboats or electric telegraphs.

*Obj.* 5. The appropriate work of teachers is intellectual education ; the care of physical education belongs to parents — *Ans.* But, if they can not or will not take proper care of it, is it therefore to be neglected ? And have parents nothing to do with intellectual education ?

*Obj.* 6. Children are sent to school to study, and not to play. — *Ans.* No : both to study and play ; and to play, that they may study the better. Indeed, well-organized play is in itself an excellent study.

QUES. VII. Into what classes of schools should these exercises be introduced ?

ANS. Into all classes. But more time may properly be given to them in primary than in higher schools ; and they are more needed in schools for girls than in those for boys, since the girls have less exercise out of school hours than the boys.

QUES. VIII. By whose action should they be introduced ?

ANS. They may commonly be introduced by the simple action of the teacher. To this, let the concurrence or direction of the

School Committee or Trustees be added, wherever required. If they would otherwise be neglected, let the pupils, or the parents in their behalf, petition for their introduction.

QUES. IX. When should they be introduced?

ANS. At once; if you mean, by your question, how soon they should be introduced. Let there be no delay.

QUES. X. No; I mean at what times in the school hours?

ANS. This must be determined by the character and circumstances of the school. In most cases, a portion of the recess may be very profitably spent in this way. Let the teacher go with the pupils to the playground; and, having there arranged them in suitable order, give them a short drill, pleasant and invigorating, in the open air. The fresh breezes, the open sky, the bosom of mother earth, will there co-operate in the work of recreation and health. Still the whole recess should not be spent in this way. Some time must be left at the free disposal of the pupils.

QUES. XI. But what shall be done in schools where the recesses must be given separately to the two sexes, and where there is but one teacher?

ANS. Let the girls be first sent out, the teacher remaining in the house with the boys. Let the teacher then go out with the boys; and, after a sufficient period of joint exercise and play, return with the girls, leaving the boys out. At the close of the recess, let these be called in. Or the order of the sexes may be reversed, if this is thought expedient. Teachers who have solved the old question of the countryman crossing the river with a fox, a goose, and a peck of corn, but allowed to take only one of these at a time, will have no difficulty in making suitable arrangements. Indeed it is always desirable that the teacher should spend part of the recess, at least, upon the playground with the pupils. The educational influences of the playground are too important to be left entirely without observation, guidance, and control. No inconsiderable share of school difficulties arise from neglect on this point.

QUES. XII. But what shall be done where the sexes have different playgrounds, and there is but one teacher?

ANS. The teacher might, in some cases, take them both to the same ground for a short time; and in others might spend

part of the recesses, or of each recess, with one sex, and part with the other.

QUES. XIII. Should these exercises be also practised in the school-room?

ANS. Yes, when from bad weather or other causes they cannot be in the open air. And, besides the practice at recesses, it will be very useful to introduce them for a few minutes (say from one to five minutes, as the case may be), whenever relief is wanted from intellectual work, or from confinement in one position. In most schools, as they are now arranged, there should be one or two such intervals during each half day. They will pay most amply for the very short time which they will require. With classes of quite young pupils, it might be well to have a few such exercises at the beginning and close of each recitation. Let the teacher but begin the work with an earnest purpose, and particular times, places, and methods will be ready enough to suggest themselves.

#### QUESTIONS ON SECTIONS 1—3, FIRST CHAPTER OF THE SECOND BOOK OF XENOPHON'S ANABASIS.

THE object of the following questions is the same as that stated in the November number of the "Teacher," in connection with the questions on the first seven lines of the *Æneid*,—simply to direct the learner to the points of investigation to which he should give attention. Though many of the questions are quite simple and elementary, the principles involved require to be studied till they are thoroughly mastered.

#### ANABASIS, BOOK II., I. (1—3).

Ὡς μὲν οὖν ἡθροίσθη Κύρῳ τὸ Ἑλληνικόν, ὅτε ἐπὶ τὸν ἀδελφὸν Ἀρταξέρξην ἐστρατεύετο, καὶ ὅσα ἐν τῇ ἀνύδῳ ἐπράχθη, καὶ ὡς ἡ μάχη ἐγένετο, καὶ ὡς ἐπὶ τὸ στρατόπεδον ἐλθόντες οἱ Ἕλληνες ἐκοιμήθησαν, οἰόμενοι τὰ πάντα νικᾶν, καὶ Κύρον ζῆν, ἐν τῷ ἔμπροσθεν λόγῳ δεδήλωται. 2. "Αμα δὲ τῇ ἡμέρᾳ συνελθόντες οἱ στρατηγοὶ ἐθαύμαζον, ὅτι Κύρος οὔτε ἄλλον πέμπει σημαίνοντα ὅ τι χρὴ ποιεῖν, οὔτε αὐτὸς φαίνοιτο. Ἐδοξεν οὖν αὐτοῖς, συσκευασαμένοις ἅ

είχον, καὶ ἐξοπλισαμένοις, προϊέναι εἰς τὸ πρόσθεν, ἕως Κύρῳ συμμίξειαν.

3. Ἦδη δὲ ἐν ὁρμῇ ὄντων, ἅμα ἡλίφ ἀνίσχοντι ἦλθε Προκλῆς, ὁ Τευδρανίας ἄρχων, γεγονὼς ἀπὸ Δαμαράτου τοῦ Λάκωνος, καὶ Γλοῦς ὁ Ταμώ. Οὗτοι ἔλεγον, ὅτι Κύρος μὲν τεθνηκεν, Ἀριαῖος δὲ πεφευγὼς ἐν τῷ σταδμῷ εἶη, μετὰ τῶν ἄλλων βαρβάρων, ὃδεν τῇ προτεραίᾳ ὠρμῶντο· καὶ λέγοι, ὅτι ταύτην μὲν τὴν ἡμέραν περιμεΐνειεν ἂν αὐτούς, εἰ μέλλοιεν ἥκειν· τῇ δὲ ἄλλῃ ἀπιέναι φαίη ἐπὶ Ἰωνίας, ὃδενπερ ἦλθε.

#### QUESTIONS.

What does *ὥς* connect? Difference between *ὥς* with and without the accent? What particles are more frequent at the commencement of a book than *μὲν οὖν*? (Comp. B. III. and IV.) What are the elements in the first *η* in *ἠθροίσθη*? What is the last *θ*? Derivation of the word? What tense in Latin corresponds to the Greek Aorist? What is the meaning of the word *Aorist*? Difference between the Latin Perf. and Greek Aorist? How is the Aorist Pass. formed? Why is *Κύρῳ* paroxytone, but *Κῦρον* below properispomenon? By what principle is *Κύρῳ* in the Dat.? Is it the Dat. of agent (*was collected by Cyrus*) or the limiting Dat. (*was collected for C.*)? Only what parts of the Pass. verb generally take the Dat. of agent? What is the history of the *ι* subscript in such words as *Κύρῳ*? Why is the article *τό* used with *Ἑλληνικόν*? How would the force of this article be expressed in Latin? Could it be expressed at all? What is the ellipse with *Ἑλληνικόν*? What is the difference of meaning between *δε* followed by the Indic. and the Opt.? What is the uniform accentuation of Prepositions? What is the force of the article *τόν*? How may it be expressed in English? Wherein is *ἀδελφόν* irregular in its accentuation? Of what two declensions is *Ἀρταξέρξην*? What cases belong to each declension? What different forms of the Acc. could be used? Why *ἐστρατεύετο* in the Imperf.? Any difference between the active and middle? From what derived? How much of this form is active? What is added to the active to give the middle or passive form? What is the office of the *ε* before the *τ*? What does the *τ* denote? What the *ο*? Why is *ὄσα* used here rather than *πόσα*? What would have been the difference if *ὄ* had been used instead of *ὄσα*? How do you name *ἐν*, with reference to accentuation? Has it here its local or temporal relation? With what Latin preposition does *ἐν* compare? Does the Latin preposition express more or less than *ἐν*? What must be the assumed or ideal form from which *τῇ* comes? Why is this form circumflexed? *ἀνόδω* is equivalent to what other word? Why is this expedition called an *ἀνόδος*, or an *ἀνάβασις*? What is the root of *ἐπράχθη*? From the root *πραγ*, how is the present *πράττω* obtained? How is *ἐπράχθη* formed from the root? What is the Perf. active? How does the *χ* of the Perf. originate? How is the Fut. *πράξω* obtained? Why has *πέπραχα* the reduplication, while such a verb as *στέλλω* has not? Why does *μάχη* take the article here? What battle is referred to? In what month of what year fought? What is the root of *ἐγένετο*? What the Prés.? What is the syllable *γι* of the Prés.? What be-



comes of the  $\epsilon$  of the root in the Pres. What occasions its disappearance? To what tenses does the improper reduplication belong? From the root  $\gamma\epsilon\nu$  how is the Fut.  $\gamma\epsilon\nu\eta\sigma\omicron\mu\alpha\iota$  and the Perf.  $\gamma\epsilon\gamma\epsilon\nu\eta\mu\alpha\iota$  obtained? Difference between  $\tau\epsilon\lambda\epsilon\nu\tau\acute{\omega}\varsigma$  and  $\theta\upsilon\eta\sigma\kappa\omega$ ? The verb root of  $\epsilon\tau\epsilon\lambda\epsilon\upsilon\tau\eta\sigma\epsilon$ ? Tense characteristic? Tense stem? Office of the final  $\epsilon$ ? What tense must be used in translating this verb into Latin? Composition of  $\sigma\tau\alpha\tau\acute{o}\pi\epsilon\delta\omicron\nu$ ? Literal meaning of the word?  $\epsilon\lambda\theta\acute{o}\nu\tau\epsilon\varsigma$  is what tense? Full form? Rule for accentuation? From what Pres.? What connection has it with  $\epsilon\rho\chi\omicron\mu\alpha\iota$ ? What is the Fut. used by Attic writers? From what is the name  $\epsilon\lambda\lambda\eta\nu\epsilon\varsigma$  derived? Where did they originate? Where was their principal locality at a later period? Why the article with  $\epsilon\lambda\lambda\eta\nu\epsilon\varsigma$ ? Are Greeks in general meant, or some particular ones? Difference between the active and middle voice of  $\epsilon\kappa\omicron\iota\mu\acute{\eta}\theta\eta\sigma\alpha\nu$ ? On what principle is the passive used here, having a middle or intransitive sense? What are such passives called? Has the Latin any middle voice? Root of  $\pi\acute{\alpha}\nu\tau\alpha$ ? How is the Nom.  $\pi\acute{\alpha}\varsigma$  formed from the root? Difference between  $\pi\acute{\alpha}\varsigma$  with and without the article? What time does the Pres. of  $\nu\iota\kappa\acute{\alpha}\omega$  often express? Why is not the subject of  $\nu\iota\kappa\acute{\alpha}\nu$  expressed? Would it be in Latin? What peculiarity in the form of  $\zeta\eta\nu$ ? What would be the regular contracted form? What parts of the verb are in use? From what verb are the defective parts supplied? Upon what do the infinitives  $\nu\iota\kappa\acute{\alpha}\nu$  and  $\zeta\eta\nu$  depend? Has  $\epsilon\nu$  here a local or temporal relation?  $\epsilon\mu\pi\sigma\theta\epsilon\nu$  preceded by the article is equivalent to what part of speech? What part of speech is it really? As an adverb, what does it qualify? From what verb is  $\lambda\acute{o}\gamma\omega$  derived? From what part? What verbs are derived from  $\lambda\acute{o}\gamma\omicron\varsigma$ ? From what adjective does  $\delta\epsilon\delta\eta\lambda\omega\tau\alpha\iota$  come? What is the predominant meaning of verbs in  $-\acute{o}\omega$ ? What is the first  $\delta$  in  $\delta\epsilon\delta\eta\lambda\omega\tau\alpha\iota$ ? What is the  $\epsilon$ ? What letter inserted before the  $\tau$  in  $\delta\epsilon\delta\eta\lambda\omega\tau\alpha\iota$  would give the third person plural? What would you call that letter then? Would the Aorist answer here instead of the Perf.? Both the Aorist and the Perf. denote a past act, but what additional relation does the Perfect express? Can such a Perf. be translated as a present? In what part of  $\delta\epsilon\delta\eta\lambda\omega\tau\alpha\iota$  is the meaning or definition? What is the office of the other parts? Is  $\delta\acute{\epsilon}$  here adversative (*but*), or does it simply mark the transition (*now*)? By what principle is  $\eta\mu\acute{\epsilon}\rho\alpha$  in the Dat.? Is it to be considered as governed by  $\acute{\alpha}\mu\alpha$  as an improper preposition, or as the Dat. of *coincidence*, under the general rule of *union* and *accompaniment*? If the latter, what two things are coincident? The force of  $\sigma\acute{\upsilon}\nu$  in  $\sigma\upsilon\nu\epsilon\lambda\theta\acute{o}\nu\tau\epsilon\varsigma$ ? Why the article  $\omicron\iota$  with  $\sigma\tau\alpha\tau\eta\gamma\omicron\iota$ ? Composition of  $\sigma\tau\alpha\tau\eta\gamma\omicron\iota$ ? Why is the  $\alpha$  in the last part of the compound changed into  $\eta$ ? Why the change in  $\sigma\tau\alpha\tau\eta\gamma\acute{o}\varsigma$  and not in  $\lambda\omicron\chi\acute{\alpha}\gamma\acute{o}\varsigma$ ? Derivation of  $\epsilon\theta\acute{\alpha}\upsilon\mu\acute{\alpha}\zeta\omicron\nu$ ? Force of the Imperf.? Composition of  $\delta\tau\iota$ ? In the strictest sense, is it a pronoun or conjunction? If the former, what relation does the clause that follows sustain to it? What Latin word corresponds to it? Composition of  $\omicron\upsilon\tau\epsilon$ ? What relation do clauses connected by  $\omicron\upsilon\tau\epsilon$ — $\omicron\upsilon\tau\epsilon$  sustain to each other? Would  $\mu\acute{\eta}\tau\epsilon \dots \mu\acute{\eta}\tau\epsilon$  answer here? Why not? Peculiarity in the inflection of  $\acute{\alpha}\lambda\lambda\omicron\nu$ ? Whence comes the second  $\lambda$ ? Corresponding Latin word? What change takes place in the Greek word that does not in the Latin? Difference between  $\acute{\alpha}\lambda\lambda\omicron\varsigma$  with and without the article? Why without

the article here? Why πέμποι in the Opt.? Peculiarity in the form of the Perf.? What English word from it? Derivation of σημανοῦντα? Future of the verb? Why circumflexed on the ultimate? What does the Fut. Part. here denote? How does it come to be contracted? Why is ποιῖν circumflexed on the ultimate? Are all contracted syllables circumflexed? When, and when not? Any peculiarity in the inflection of αὐτός? The corresponding Latin word? What is the office of αὐτός here? To what word is it antithetic? Is it ever used as the subject of the verb? In the oblique cases, when it does not agree with a substantive, has it any intensive or separative force, or is it a simple pronoun? Why φαίνονται in the middle voice? Difference between it in the active and middle? Is the regular Perf. used by the best writers? Why not? What is the Perf. in general use? What is the root of the word? Two futures of ἔδοξεν? Which is the prose form? Two perfects? Which prose? The elements in the double consonant ξ in ἔδοξεν? What do you call the final ν in ἔδοξεν? What is its office here? By what principle is αὐτοῖς in the Dat.? What is meant by a limiting Dat.? Has αὐτοῖς just the force that τούτοις would have? Which is the more pointed or direct? What would be the accentuation of αὐτός in the Acc. pl. masculine? Why circumflexed here? Composition of συσκευασαμένοις? What has become of the final ν of σύν? When is it dropped, and why? When is it assimilated? What construction must συσκευασαμένοις be in, in Latin? Why? Root of εἶχον? Why smooth breathing in the Pres., but rough in the Fut.? Peculiarity in the augment? How many verbs with the same augment? The force of ἐξ in ἐξοπλισαμένοις? Why ἐξ and not ἐκ? Why the accent on the penult? How much of προῖέναι is simple root? What is ναι? What is the old infinitive ending from which this is abbreviated? By what principle accented on the penult? How is εἰς named with reference to accentuation? What other words are atonics or proclitics? Why Κύρῳ in the Dat.? Root of συμμίξειαν? What syllable is appended to the root, in the Pres.? When is νν, and when ννν appended? Why συμμίξειαν in the Opt.? What does ἤδη qualify? Usual position of δέ in the sentence? Why ὀρμῇ circumflexed, when the Nom. has the acute? With what does ὄντων agree? Why not expressed? What is the construction of the word with which ὄντων agrees? What is to be understood by a Gen. absolute? Why called *absolute*? What relation does ἡμα ἡλίῳ ἀνίσχοντι sustain to ἐν ὀρμῇ ὄντων? Why Προκλής circumflexed in the Nom.? What is the uncontracted form? Of what declension is the word? Why is the article ὁ used before Τενθρανίας? Where was Τενθρανίας? Is it the name of a city or of a division of a country? How much of γεγονώς is root? How is the ο to be accounted for? Why the accent on the ultimate? Why depressed or grave? Why the article before Λάκωνος? Declension of Ταμῷ? Regular? Its construction? Composition of οὔτοι? When is the penult of the word ου, and when αυ? What Latin word corresponds with it? Is ἐλεγον Aorist or Imperf.? Do verbs whose second Aor. active would be the same as the Imperf. have any second Aor. active? Different forms of the Perf. of this word? Is the Perf. active in the sense of *to say* in use? What is the correlative of μέν? The root of τέθηκεν? How from the root θαν is the Pres. θνήσκω

formed? Why is not the  $\theta$  repeated in the reduplication instead of being changed into  $\tau$ ? The Perf.  $\tauέθνηκα$  has the force of what tense? Has it no other relation, however, besides a Pres.? If you translate it so as to denote the act signified, what tense must be used in translating? Why is  $\tauέθνηκεν$  in the Indic., while  $είη$  is in the Opt.? By the Indic. do they wish their statement to be taken as their *opinion*, or as an absolute matter of *fact*? By the Opt.  $είη$ , do they state a *fact*, or simply indicate that *in their opinion* the matter is as stated? What Perf. is  $πεφενγώς$ ? Is the first Perf. in use? Derivation of  $σταθμῶ$ ? Its different senses? Primary meaning of  $μετά$ ? Derivation? What English word is nearly equivalent to  $\betaαρβάρων$ ? What is the antecedent of the abverb  $ὄθεν$ ? The ellipse with  $προτεραίᾳ$ ? By what principle in the Dat.? Force of the Imperf.  $ᾠρῶντο$ ? Why in the middle voice? Difference between the active and middle? Why  $λέγοι$  in the Opt.? What is the general rule for the accentuation of verbs? Why  $ήμεραν$  in the Acc.? Is it governed by any word? Would it be proper to call it an independent Acc., denoting the duration of time? What does  $ἄν$  joined with the Opt.  $περμείνειεν$  imply? What is the conditioning clause? Which is the *protasis*, and which the *apodosis*? What is the Perf. of  $περμίνω$ ? How can  $μεμένηκα$  come from  $μένω$ ? What is the government of  $αὐτούς$ ? Why is not the subject of  $ἀπιέναι$  expressed? Would it be expressed or omitted in Latin? Why  $φαίη$  in the Opt.? Instead of  $ἀπιέναι φαίη$ , what one word, and in what form, would have been more common? Difference between  $ἐπὶ Ἰωνίας$  and  $ἐπὶ Ἰωνίαν$ ? What and where was Ionia?

S. H. T.

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### LONGEVITY.

*The Medical and Surgical Journal* for August last has an editorial from which we take the following:—

“Nearly a year ago we published some interesting statistics concerning the duration of life among the graduates of Harvard College, deduced from the computations of Prof. Peirce. The most striking result was the fact that those graduates were longer-lived than the average of mankind; and the ample materials for the calculation would seem to warrant their being quite reliable. In looking over the necrology of Harvard for the past year, we find a striking confirmation of the results obtained by Mr. Peirce in the remarkably advanced age of those who died since Commencement Day, 1857. The number of deaths, so far as ascertained, is 30; and the aggregate ages of the deceased amount to 1913, giving an average of 63 4-5 years to each person. One graduate died at the age of 93 years; 7 were 80;

9 between 70 and 80 ; 2 between 60 and 70 ; 3 between 50 and 60 ; 9 were under 50. The age of the youngest was 25.

"These results are also confirmed in a striking manner by similar ones obtained from the necrology of Yale College for the past year. The number of graduates of Yale who died during the year, and whose ages are recorded, was 46 ; and their aggregate ages amount to 2873 years, giving an average of 62 1-3 to each graduate. There were 4 over 80 years ; 19 between 70 and 80 ; 4 between 60 and 70."

The writer proceeds, in application of such data, to the regulation of policies of life insurance ; with this, however, we have, at present, nothing to do but assent heartily to his two propositions, that all professional men of moderate means should provide some security for their families, and that companies should execute this assurance at premiums of lower rate than for those of other circumstances and occupations.

Laying out of account this slightly deceptive character of the statistics, resulting from the computation commencing at a period of life when the risks of infancy and childhood are passed, and remembering that these very risks largely reduce the average of existence, there still lies here an instructive fact. It is proved that mental activity and exertion is more conducive to health and longevity than grosser physical toil ; and by so great a disproportion as to more than balance the notorious imprudences of too many scholars. We think the life of teachers will be found to reach a higher average than any other strictly literary profession ; and, by this, we mean to except physicians, whose business forces upon them the salutary exercise so reluctantly and imperfectly employed by others. One is surprised, on examining for the first time lists of those who died at great age, to find how many were devoted to intellectual pursuits, and those not infrequently of the most absorbing and exacting description. To the mental employment, adding simple diet, quiet tenor of life, cheerful contentment, and an independence of vulgar applause, many in past centuries have far surpassed the scripture allotment.

Intellectual exertion not only promotes physical endurance, but tends also to preserve the balance and vital vigor of the mind itself. This at first strikes us as a paradox, but is yet in accordance with the laws of metaphysics.



We were impressed with this while cursorily looking over, a half-year since, some of the State Insanity Reports. Our figures are too indistinct for any thing under generalities. Take only two: At Taunton, during 3 years, there were 61 laborers, 39 seaman, 32 shoemakers, 12 carpenters, 11 traders, 4 teachers, 3 clergymen, 2 physicians. Among the causes, we have domestic trouble, 36; trouble about property, 26; hard work, 11; hard study, 5. (We are confident no teacher went there from the cause second named.) At Worcester, by various tables, we get domestic affliction, 331; hard labor, 52; and all such: but no hard study. Again, farmers, 250; laborers, 174; clergymen, 10; lawyers, 6; physicians, 4: but not a single teacher. Again, farmers, 407; laborers, 314; teachers, 52. Cases from physical causes, 1464; from moral causes, 999.

Phrenology declares our bump for statistics small; but we wish somebody who has a taste for such labor would give himself to it, and we promise results that would astonish all, and drive us from many long-cherished but erroneous notions. Ward Beecher, in one of his dogmatic aphorisms, says, "Worry, not work, kills a man;" and he is right. Many lamentations are wasted upon the toils of school-keeping; the frittering away of mental powers; the necessary anxiety about trifles; the unrequited exhaustion; the unthanked sympathy and the abused love and the forfeited confidence, and all that stuff, — enough to fill a Jeremiad. Well, if it were all as true as it is melancholy, — which it never was, — the trouble could not be relieved by songs of mourning. School-keeping is hard work; so a great man once found the study of Latin grammar, — but he made the important discovery that ditching was somewhat harder. We would rather take our lot, if Providence so ordained, in the unruliest mob of boys that ever hacked benches or broke windows, than be a soldier with Havelock or a sailor with Kane. But in what volume have these magnanimous martyrs recorded their wailings over a woeful destiny? Let the teacher, in his day of despondency, remember and imitate them; let him be undaunted by difficulty, undismayed by defeat, invigorated by his sense of responsibility. Good-humor, even temper, and self-control are inimitable purifiers of the blood, and sovereign rulers of the

nerves. No two days of school-life are sufficiently alike to compel monotony; routine, indolence, discontent, can do it, but never genuine and complete devotedness to duty. Our profession claims superiority to all others in the precise apportionment of time. No man or woman, whose toil is confined to six or seven hours of the twenty-four, four days out of seven, and half as much two more, with one day for rest, has a right to plead occupation as an excuse for lack of enjoyment, or neglect of culture, or ruin of health. One great lesson we need to learn, after disciplining ourselves in the room, is to lock the door properly at evening. If impatience, petulance, laziness, have haunted us through the dreary day, none of them should go home by our side; fasten them all inside, but leave some path of escape for them, so that we shall find them departed by morning. We cannot afford to be pedagogues all the twenty-four hours; we need relaxation of mind and features and disposition. Dignity is a fair article in its place, so is dyspepsia; but we cannot purchase one at the expense of the other. Robert Hall was never more sensible than when, being reproved by a sanctimonious brother for hilarity in a bevy of young people, he replied, "Brother A——, the difference between you and me is simply this, I have my nonsense out of the pulpit, and you have yours in it."

Let teachers, male and female, care for the body as well as the mind; for themselves as well as their pupils; exercise as well as study; play as well as work, — and we shall hear less about the miseries and ungrateful doom of school-keeping. P.

#### GRAMMATICAL ANALYSIS ADDRESSED TO THE EYE.

S——, November, 1858.

MY DEAR N.,—You request me to describe to you the method which we have adopted of representing the analysis of sentences to the eye, by giving to each word a position indicative of its office. I am happy to comply with your request, and the rather because I have some questions to propose to you in turn.

You ask me how early, in the study of grammar, I should introduce this method of systematic arrangement. I have no hesitation in replying, from the very outset ; for you know that it is one of my favorite doctrines, that the study of grammar should commence not with orthography or etymology, but with syntax ; that the pupil's first lesson should be the analysis of a sentence of the shortest and simplest kind, — a sentence of only two words, as, for example, " John walks," " Jane sings," " Fire burns," — in order that he may consciously observe, what already he perfectly well understands practically, that one of the two words denotes the person or thing spoken of, and that the other expresses what is said of this. When he has become perfectly familiar with this distinction, — not before, in accordance with the Pestalozzian maxim, that " ideas should precede names," — then let him have the technical terms *subject* and *predicate*, and commence the work, or, as he will yet consider it, the play of arrangement. Let him draw upon the blackboard, or upon his slate or paper, two perpendicular lines ; and against the first of these let him place a column of subjects, and against the second a column of the corresponding predicates, — marking the sentences with the letters of the alphabet, thus :

	SUBJECT.	PREDICATE.
A.	John	walks
B.	Jane	sings
C.	Fire	burns
D.	Fishes	swim
E.	You	laugh

To the two words which are essential to the constitution of a sentence, the subject and the predicate, a third may now be added to designate the person or persons addressed. This may be called the *compellative* ; and the pupil may proceed to analyze and arrange such sentences as " Mother, John walks," " I write, father," " Brethren, virtue ennobles," " William, sir, went." The arrangement now requires more thought. To our new column we may give the heading " Compellative," and afterwards change this to " Independent," when we introduce, according to our usage, other words independent of grammatical construction into

the same column ; or we may place over it the term "Independent" at once. Thus :

	SUBJ.	PRED.	COMP. [or IND.]
A.	John	walks	Mother
B.	I	write	Father
C.	Virtue	ennobles	Brethren
D.	William	went	Sir

When the pupil has become entirely familiar with the three primary parts of the sentence, and their offices and relations, and has also learned some etymological distinctions and terms which may be here appropriately introduced (substantive, verb ; noun, pronoun ; gender ; number ; &c.), let him proceed to the consideration of secondary parts, modifying the primary. In respect to modifiers, our rule for arrangement has been simply this, that they should be written under the words which they modify, but farther to the right. Thus, the sentences, "Active boys play briskly," "Dear brethren, true virtue always ennobles," "Good scholars, my son, study diligently," would be written as follows :

	SUBJ.	PRED.	IND.
A.	Boys active	play briskly	
B.	Virtue true	ennobles always	Brethren dear
C.	Scholars good	study diligently	Son my

Modification, and the mutual relations of the modifier and the word which it modifies, being fully comprehended, or perhaps I ought rather to say, this part of grammar having been drawn forth from the pupil's mind, — for virtually it must have existed there, and he must have practically understood these relations, otherwise he could not have known the meaning of these simple sentences, — we may now distinguish the different kinds of modifiers, and may give to the sentences which we select as examples a greater length, by introducing modifiers of words which are themselves modifiers, or several modifiers of the same word. The sentence, which without modifiers would have the naked form, "FRIENDS, DAYS PASS," or, with a single modifier of each of the primary parts, such a form as, "Dear FRIENDS, happy DAYS PASS rapidly," might be extended in this way, till it should assume a form like the following (the modifiers of other modifiers being



printed in Italics): "My *very* dear *ever* fast FRIENDS, our *exceedingly* few *truly* happy DAYS always PASS *very much too* rapidly." The sentence in this extended form would be thus arranged, the pupil being careful to place each modifier under the word which it modifies but farther to the right, and to place modifiers of the same word directly under each other in the same column:—

SUBJ.	PRED.	IND.
Days	pass	Friends
happy	always	dear
truly	rapidly	very
few	too	fast
exceedingly	much	ever
our	very	my

Of several modifiers of the same word, that which is most closely related to it in thought might be placed first in order; but we have not been in the habit of attaching much importance to this precedence, and often arrange them simply in the order in which they happen to occur in the sentence. Indeed we should often find it difficult to decide questions that might arise respecting comparative intimacy of relation.

When modifying substantives are preceded by prepositions as signs of their relations, we simply, in our arrangement, prefix the sign to the modifier, writing the two words in the place which we should assign to a modifier not thus accompanied. We do not consider it important or desirable to assign a separate place to a mere sign or exponent. May I select, for illustration, a sentence strangely extended, and certainly not

" With many a bout  
Of linked sweetness long drawn out " ?

It is the following: "This eminent scholar acquired a great renown for minuteness of acquaintance with all the incidents of importance in the early periods of the history of the colonies of England upon the coast of America." Can your fastidious taste tolerate this droll chain of adjuncts linked to adjuncts, even long enough to see how we should arrange it ?

SUBJ.	PRED.
Scholar	acquired
this	renown
eminent	a
	great
	for minuteness
	of acquaintance
	with incidents
	all
	the
	of importance
	in periods
	the
	early
	of history
	the
	of colonies
	the
	of England
	upon coast
	the
	of America.

You ask me how we can dispose, upon our system, of subordinate clauses. Without the least difficulty. It would certainly be very inconvenient, and a source of confusion, to write them out in their appropriate places as modifiers ; and we therefore simply put in these places figures, or letters, or other symbols, representing them and referring to them, and afterwards write out the subordinate sentences with the symbols prefixed, according to our general form. We sometimes use, for these references, merely the common numerals ; marking the first subordinate clause with 1, the second with 2, &c., without regard to their rank. At other times, we indicate their rank by the symbols which we employ. For example, while we mark independent sentences, as of the first rank, with capital letters, we mark clauses modifying these, or clauses of the second rank, with the numerals 1, 2, 3, &c. ; clauses of the third rank, that is, clauses modifying those of the second rank, by the small letters, a, b, c, &c. ; clauses of the fourth rank, by the Italics, *a, b, c*, &c. ; those of the fifth rank, by double letters ; and so on. We now obviously require an additional column for the connectives of sentences ; and, as these often perform the office of a pronoun or adverb in the sentences which they introduce, and therefore need to be written twice, we

usually indicate this by inclosing them within brackets in the column of connectives.

We sometimes employ another set of symbols for a purpose quite different. All modifiers are either substantives (nouns, substantive pronouns, or infinitives), adjectives (articles, adjective pronouns, and participles included), or adverbs; or subordinate clauses used with the offices of these parts of speech. We therefore agree upon some symbols to distinguish these; as, a right angle, or a square, or the letter *s*, for a modifying substantive; a circle, or the letter *j*, for an adjective; an acute angle, or an equilateral triangle, or the letter *v*, for an adverb.

The following just criticism of Crabbe upon novels presents to us specimens of dependent sentences of each of the three classes; and might be arranged, with references and symbols, as below:—

“I’ve often marvelled, when by night, by day,  
I’ve marked the manners moving in my way,  
That books which promise much of life to give  
Should show so little how we truly live.”

	CONN.	SUBJ.	PRED.
A.		I	have marvelled often $\Delta$ (1.) $\Delta$ (2.) $\square$
1.	[When]	I	have marked when $\Delta$ by night $\square$ by day $\square$ manners $\square$ the $\circ$ moving $\circ$ in way $\square$ my $\circ$
2.	That	Books (a.) $\circ$	should show little $\Delta$ so $\Delta$ (b.) $\square$
a.	[Which]	Which	promise to give $\square$ much $\square$ of life $\square$
b.	[How]	We	live how $\Delta$ truly $\Delta$

The poet has spoken of "the wondrous web of language, life-instant," but this web is only the web of thought made visible; and, in the mental contexture, ideas are so strangely intertwined and inwoven, that we must not marvel at a corresponding complication in the pictorial tapestry of speech. A large portion of the difficulties and disputes in grammatical analysis have arisen from what may be termed *complex* or *double modification*; in other words, from that very common construction in which a word seems to sustain a double relation as a modifier. Thus, in the sentence, "John painted his house white," the adjective *white* not only expresses the color of the *house*, but also, with an adverbial force, how John *painted* it. In the sentence, "The apple feels hard, but tastes sweet," the adjectives *hard* and *sweet* both express *what qualities* the apple possesses, and also *how* it feels and tastes. Other examples of like construction we will borrow from the poets, though they are equally common in prose.

"When Death lays *waste* thy house." — *Beattie*.

"And greatly *independent* lived." — *Thomson*.

"Some stood *erect*, while others *prostrate* fell."

"And the eyes of the sleepers waxed *deadly* and *chill*." — *Byron*.

"Her smiles, amid the blushes, *lovelier* show." — *Hoole's Tasso*.

"The playful children just let *loose* from school." — *Goldsmith*.

In such cases, we sometimes write the modifier twice; but more commonly once only, in most direct connection with the word to which its relation appears to be closest, often indicating its double office by the use of a double symbol. Thus:

	CONN.	SUBJ.	PRED.
A.		John	painted house □ his ○ white ○ △
B.		Some	stood erect ○ △ (1.) △
1. [While]		Others	fell prostrate ○ △ while △

When one of the elements of a sentence is compound, we some-



times write the parts which compose it in the same line, and sometimes directly under one another; using in the latter case a brace, whenever necessary, to indicate their union. To a conjunction connecting the parts we give no separate place, as it is a mere sign of the union of like parts, and we reserve our first column for the connectives of sentences. A compound subordinate clause, however, we sometimes find it more convenient to write as two subordinate clauses. If we supply words to complete the grammatical construction, we mark them as *Italics*, by the printer's symbol of a line drawn beneath. The following, from Dr. Johnson's beautiful and instructive story of Obidah, may illustrate the two methods of writing a compound subordinate clause: "Thus he went on, till the sun approached his meridian, and the increasing heat preyed upon his strength."

	CONN.	SUBJ.	PRED.
A.		He	went on thus (1.) approached meridian his preyed upon strength his
1.	Till {	Sun the and Heat the increasing	
A.	CONN.	SUBJ.	PRED.
		He	went on thus (1, 2.) approached meridian his preyed upon strength his
1.	Till	Sun the	
2.	And till	Heat the increasing	

Three more examples will perhaps sufficiently illustrate our method. At any rate, they will be as many as the limits of a letter even between grammatical correspondents, and I fear also your patience, will permit. The first I select from Mr. Tuckerman's critique upon Wordsworth; and the other two are gems from Bryant's "Thanatopsis."

"It is not easy to estimate the happy influence Wordsworth has exerted upon poetical taste and practice, by the example he has given of a more simple and artless style. Like the sculptors who led their pupils to the anatomy of the human frame, and the painters who introduced the practice of drawing from the human figure, Wordsworth opposed to the artificial and declamatory the clear and natural in diction."

CONN.	SUBJ.	PRED.
A.	It	is
	to estimate $\square$	not
	influence	easy $\circ \triangle$
	the	
	happy	
	(1.) $\circ$	
1. [Which]	Wordsworth	has exerted
		which
		upon taste and practice
		poetical
		by example
		the
		of style
		a
		simple and artless
		more
		(a.) $\circ$
a. [Which]	He	has given
		which
B.	Wordsworth	opposed
		clear and natural $\square$
		the
		in diction
		to artificial and declamatory $\square$
		the
		like $\triangle$
		to { sculptors
		the
		(2.) $\circ$
		and painters
		the
		(3.) $\circ$
2. [Who]	Who	led
		pupils
		their
		to anatomy
		the
		of frame
		the
		human

3. [Who] Who introduced  
 practice  
 the  
 of drawing □  
 from figure  
 the  
 human

“To him who, in the love of Nature, holds  
 Communion with her visible forms, she speaks  
 A various language., For his gayer hours,  
 She has a voice of gladness, and a smile  
 And eloquence of beauty; and she glides  
 Into his darker musings with a mild  
 And gentle sympathy, that steals away  
 Their sharpness, ere he is aware.”

	CONN.	SUBJ.	PRED.
A.		She	speaks language a various to him (1.) ○
1.	[Who]	Who	holds communion with forms her visible in love the of Nature
B.		She	has <div style="display: inline-block; vertical-align: middle;"> <div style="font-size: 2em; vertical-align: middle;">{</div> <div style="display: inline-block; vertical-align: middle;">           voice            a            of gladness            and smile and eloquence            a            of beauty            for hours            his            gayer         </div> </div>
C.	And	She	glides into musings his darker with sympathy a mild and gentle (2.) ○

	CONN.	SUBJ.	PRED.
2.	[That]	That	steals sharpness their away (a.) Δ
a.	Ere	He	is aware ○ Δ

"So live, that, when thy summons comes to join  
The innumerable caravan, that moves  
To that mysterious realm where each shall take  
His chamber in the silent halls of death,  
Thou go not like the quarry slave, at night,  
Scourged to his dungeon; but, sustained and soothed  
By an unfaltering trust, approach thy grave  
Like one who wraps the drapery of his couch  
About him, and lies down to pleasant dreams."

	CONN.	SUBJ.	PRED.
A.		<i>Thou</i>	live so (1.) Δ
1.	That	Thou	<div style="display: flex; align-items: center;"> <div style="font-size: 4em; margin-right: 5px;">{</div> <div> go not like Δ to slave the quarry ○ going at night scourged to dungeon his but approach grave thy sustained and soothed ○ Δ by trust an unfaltering like Δ to one (a.) ○ </div> </div>
			(b.) Δ



- a. [Who] Who { wraps  
drapery  
the  
of couch  
his  
about him  
and lies  
down  
to dreams  
pleasant  
comes  
when
- b. [When] Summons  
thy  
to join □  
caravan  
the  
innumerable  
(a.) ○
- a. [That] That moves  
to realm  
that  
mysterious  
(aa.) ○
- aa. [Where] Each shall take  
chamber  
his  
in halls  
the  
silent  
of death  
where

You ask me to state the advantages which we have found or suppose that we have found in this method ; but you will see a very obvious reason why I should defer all attempt to comply with this request till my next letter. So

Yours, in the closest bonds of Syntax, A.

P. S. All the return I ask for this *lengthy* epistle (since the English have at last recognized this coin from the Yankee mint, and *long* is not half long enough for a case like this) is, that, in your next, you would explain your improved method of arranging the terms in compound proportion, so as to lighten the work, and to render more clear the practical identity between proportion and the method termed analysis.

## INTERMITTENT SPRINGS.

As I was riding once among the Green Mountains with my friend the Schoolmaster, I saw by the side of the road a copious spring, most invitingly clear, and gushing directly out from the rock. "Stop," said I, for he was holding the reins, "I am thirsty, and should like to try this spring."

"With all my heart," said he; "it is excellent water, and you will find the rock dry when we come back."

"How is that possible?" I asked.

"It is an intermittent spring; and, rich and generous as it seems, it never runs more than a week at a time. Then it will be dry for two or three months."

We both alighted, and drank copiously, for the water was indeed delicious. "Shall I tell you my thoughts?" said the Schoolmaster, after we had resumed our seats in the wagon.

"Do so," I replied.

"I never pass this spot without thinking of a class of teachers. I hope you do not belong to this class."

"What class do you mean?"

"That class which resembles this fountain. It will rain day after day, and week after week; yet not a drop of water will flow from this opening. At last the reservoir can hold no more; and then, all at once, such a stream will burst forth as though a little Winnipiseogee were feeding it. For three or four days, it will pour, pour, pour; and then, just as suddenly, it will stop again. So it is with some teachers. With that 'charity' which 'suffereth long and is kind,' which 'beareth all things, hopeth all things, endureth all things,' they will permit inattention, disorder, and misconduct to go on in their schools day after day. Now they seem to have neither eyes nor ears; now they positively encourage roguery by a smile. But the last drop at length fills up the reservoir of their tempers; and then such a Niagara of scolding and threatening breaks forth! The scholars understand that it would be dangerous for them to do any mischief or make any noise just now. Their eyes are all on their books, except when they steal glances at the enraged master. They

walk on tiptoe. But the Niagara has soon stopped running, and no one has been hurt. The scholars find that they have simply been sprinkled with the spray. They begin to wonder that they were so frightened, and resolve that they will not be so the next time. By degrees their animal spirits creep out, as Æsop's frogs from their hiding-places, after the splashing of the log which Jupiter had thrown down as their king. The frogs soon mounted the log in utter derision. And so the roguish boys and arch girls soon treat the log-schoolmaster, who had made so fearful but harmless a splashing in their little pool, with equal disregard. They begin their pranks gradually; and the master, who is satisfied that by the late demonstration he has now thoroughly established his authority, feels so secure, and, by a species of reaction, so very good-natured, and takes so little notice of the frolic and misrule, that in a few days they rise unchecked to as great a height as before. And now comes another storm, and after it another calm; to be succeeded, if the school keeps long enough, by storm and calm No. 3. "You don't keep school so, I hope?" said he, turning suddenly round and looking me close in the eye. "Absolute tyranny or absolute indulgence are, either of them, better than this storm-sunshine of temper, without action. Scholars will neither fear nor respect nor love such a teacher; and, these motives all wanting, what influence can he hope to exert over them? He is in as bad a condition as the Laodicean church."

I could not claim that my school government was entirely faultless in the particulars of which he spoke.

"Do you know D——?" said he; "an admirable teacher; and I once heard him tell in his school a capital story, in illustration of this very mode of government."

"I do not know him. But what was it? for so good a story ought not to be lost for lack of repetition."

"It was this: D—— said that one day he was whiling away his time in a belt of wood which separated his father's farm from a neighbor's, when, unobserved, he became a witness of the following scene. The neighbor was in a field adjoining the wood, hoeing corn, and with bare feet. His son Hiram, a chubby boy, eight or nine years old, who ought to have been at

school, was in the field with him, sometimes lying on the grass borders, sometimes strolling up and down the rows, and sometimes rolling in the dirt. The great object of attraction to the boy was his father's bare feet. He would pick up a small pebble and watching his opportunity, as a cat to spring upon a mouse, would throw it so as to hit one of the feet. The man would jump up, look round, and then go to hoeing again. In a short time another pebble came, and then another, and another. The boy had evidently great dexterity at this species of game. Sometimes the man would stop and rub his foot a little, before resuming his work. At length, the measure of his temper was full; and he broke out, 'Hallo, there, Hiram, what are you about?' 'Nothing, sir,' replied the boy in a low grum tone. 'Yes, you are, you rogue; you are throwing stones at my feet.' 'Did n't mean to,' said Hiram, in a sort of half pleading, half saucy tone. 'Yes, you did; you know you did; and I won't bear it. If you do so again, I'll take a stick to you.' For a little time the feet were unmolested. But Hiram understood his father's system of government; and after waiting a while, and taking a few extra rolls in the dirt, he picked up a little smooth stone and gave it a gentle toss at his father's feet. No notice was taken of this; and the next stone was a little larger, and thrown with more force. The process went on, till the father was at length roused again. After some preliminary questioning, with lying answers from Hiram, the threat was repeated, and with more force: 'If you do that again, boy, I'll give you a good thrashing!' But, after a short interval, the boy did it again; and the thrashing did not come. The next time, the threat was still louder and more energetic: 'If you don't stop that work, I'll take you into that wood, — see if I do n't,—and wear up a good withe about you!' But the hopeful son kept on his play, and *saw that he did n't*. My friend D—— was curious to ascertain how many times this scene would be repeated, and with what intervals; but his observation was interrupted by the blowing of the dinner horn; and the truthful, consistent, well-managing father, and the obedient, affectionate son, now no longer throwing stones at his father's feet, and his offences all forgotten, went in together to the house, — the boy to

devise some new form of annoying mischief, and the father to be thankful that he had so promising a son, and was bringing him up so well. And some teachers congratulate themselves upon success in their schools with just as good reason!"

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### "THE GOOD SCHOOLMASTER."

There is scarce any profession in the commonwealth more necessary which is so slightly performed. The reasons whereof I conceive to be these: First, young scholars make this calling their refuge; yea, perchance, before they have taken any degree in the University, commence schoolmasters in the country; as if nothing else were required to set up this profession, but only a rod and a ferula. Secondly, others, who are able, use it only as a passage to better preferment; to patch the rents in their present fortune, till they can provide a new one, and betake themselves to some more gainful calling. Thirdly, they are disheartened from doing their best with the miserable reward which in some places they receive, being masters to the children and slaves to their parents. Fourthly, being grown rich, they grow negligent; and scorn to touch the school, but by the proxy of an usher.

Some men had as lieve be schoolboys as schoolmasters, — to be tied to the school, as Cooper's *Dictionary* and Scapula's *Lexicon* are *chained to the desk* therein; and though great scholars, and skilful in other arts, are bunglers in this.

But a good schoolmaster studieth his scholars' natures as carefully as they their books, and ranks their dispositions into several forms. He refuseth cockering mothers who proffer him money to purchase their sons' exemption from his rod, and scorns the late custom in some places of commuting whipping into money, and ransoming boys from the rod at a set price.—*Thomas Fuller.*

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"As we stood before Busby's tomb, the knight uttered himself: 'Dr. Busby, — a great man! he whipped my grandfather, — a very great man! I should have gone to him myself if I had not been a blockhead, — a very great man!'" — *Spectator.*



# Resident Editor's Department.

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## TO THE READERS OF THE TEACHER.

AFTER the present number, the management of the "Teacher" will pass into other hands; and the undersigned, in closing his labors as Resident Editor, desires to express his sincere thanks to the readers, contributors, and associate editors of this journal for the hearty coöperation which he has constantly received during the two years that he has had charge of this department. Under no circumstances would he have consented to occupy the position, which he has so poorly filled, had it not been for the encouragement of those who had almost the right to command his services in any capacity, however arduous or humble.

In relinquishing his official connection with the "Teacher" he cannot forbear to congratulate the friends of education generally on its future prospects. The next volume will commence under circumstances which will present a wide contrast with the troubles and difficulties that attended the first issue of our periodical in 1848. Then the number of subscribers was small, and the labor of publication was sustained by some few individuals who were willing to give their time and money to establish what they conceived to be an important auxiliary in home and school instruction. Some of the present editors well recollect the fears which were entertained for its success during the first year or two of its existence. Gradually, however, the "Teacher" gained strength, the number of subscribers increased, and the interest in the work became more general. Now it can be said to be on a firm basis. Its financial department is in good condition, and its circulation quite respectable. Through the exertions of a few friends, nearly five hundred new names have been added to the subscription list during the past year, and pledges have recently been given which will doubtless increase the circulation as much more for the next volume. Moreover, the State recognizes the "Teacher" as a medium of communication with school committees, and makes an annual appropriation for its support. Although such has been its success in the past, much remains to be done to enlarge its sphere of usefulness. It is certainly greatly to be desired, and not an impossibility, that, for the forthcoming volume, the number of subscribers should be at least doubled. As yet, only about one-fourth of the teachers in Massachusetts contribute anything to maintain what is generally considered and acknowledged to be their professional organ.

The literary management of the "Teacher" has been entrusted to gentlemen of eminent abilities as writers, of long experience in the school-room, and of well-known devotion to their calling. At the late convention held at Worcester, the Directors of the Association made the following appointments:—

CHARLES ANSORGE, Dorchester, ..... Resident Editor.

S. H. TAYLOR, Andover, }  
GEO. B. EMERSON, Boston, } ..... Special Contributors.

THOMAS SHERWIN, Boston, Editor of Mathematical Department.

SPECIAL EDITORS.

W. T. Adams, ..... Boston.  
Alpheus Crosby, ..... Salem.  
J. W. Dickinson, ... Westfield.  
J. S. Eaton, ..... Andover.  
W. C. Goldthwait, . . . Longmeadow.  
Charles Hammond, ..... Groton.  
Jonathan Kimball, ..... Dorchester.  
B. G. Northrop, ..... Saxonville.  
John D. Philbrick, ..... Boston.  
William Russell, ..... Lancaster.  
A. P. Stone, ..... Plymouth.  
Wm. S. Tyler, ..... Amherst.

Under the direction of such a Board, we bespeak for our journal a larger circulation and a greater influence than it has ever before obtained. The aid of every good educator, however, is needed, and ought to be given cheerfully, in furtherance of an enterprise at once so difficult and useful; and we close this volume with the earnest wish that all who are engaged in the important business of giving instruction may become subscribers and liberal contributors to the MASSACHUSETTS TEACHER.

A. M. GAY.

BOSTON, Dec. 1, 1858.

# Mathematical.

## SOLUTION OF QUESTION 7.

[What is the highest latitude reached in sailing the shortest way from one point to another, the points being in lat.  $42^{\circ}$  N., and distant 3000 nautical miles, reckoned on the parallel of latitude passing through the points? And

what is the distance in nautical miles, the earth being considered a perfect sphere, whose circumference is 21,600 nautical miles?]

In the solution of Problem 7, two circles are involved: 1st, the circle whose circumference is the 42d degree of latitude, on which the 3000 miles are measured; 2d, the great circle of the earth on which the ship really sails. These circles have a common chord which subtends an arc of 3000 nautical miles on the less circle. This chord measures  $2830.05 +$  miles. The radius of the less circle is equal to the radius of the great circle, multiplied by  $\cos.$  of  $42^\circ$ . A chord of  $2830.5 +$  miles subtends an arc of the great circle which measures  $2917 +$  miles, which is the real distance sailed. From the chord are easily found the respective lines from the middle of the chord to the centres of the two circles. These two lines constitute the hypotenuse and base of a right-angled triangle; and the angle between them is alternate with and equal to the angle of the highest latitude reached by the ship, viz.,  $47\frac{1}{4}$  degrees.

C. C. C.

## SOLUTION SECOND.

Let P be the north pole of the earth, AB the given arc on the parallel of  $42^\circ$ , PA and PB arcs of meridians, and AZB the arc of a great circle passing through A and B, PZ being perpendicular to AZB.

According to the principles of parallel sailing, the difference of longitude between A and B =  $\frac{3000}{\cos. 42^\circ} = 4037$  miles =  $67^\circ 17'$  = the angle APB.

Therefore, the angle ZPB =  $33^\circ 38' 30''$ . In the right-angled triangle ZPB, by Napier's Rules,  $\text{tang. ZP} = \cos. \text{ZPB} \times \text{tang. BP} = 42^\circ 45' = \text{co. lat.} \therefore \text{lat. reached} = 47^\circ 15' \text{ N.}$

Again,  $\sin. \text{ZB} = \sin. \text{ZPB} \times \sin. \text{PB} = 24^\circ 19' \therefore \text{AZB} = 48^\circ 38' = 2918 \text{ miles} = \text{distance.}$

*Remark.* This question was not proposed as involving any difficulty, but as an exercise for the student in Navigation. ED.

## Editorial Postscript.



☞ All communications relating to the editorial department of the "Teacher" should hereafter be addressed to "CHARLES ANSORGE, Office of 'Massachusetts Teacher,' Congregational Library Building, Chauncy Street, Boston." All business letters should be sent to "CHARLES HUTCHINS, Boston." Articles forwarded for insertion in the "Teacher" must be accompanied with the real name of the author, not necessarily for publication, but as a guaranty of good faith.

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